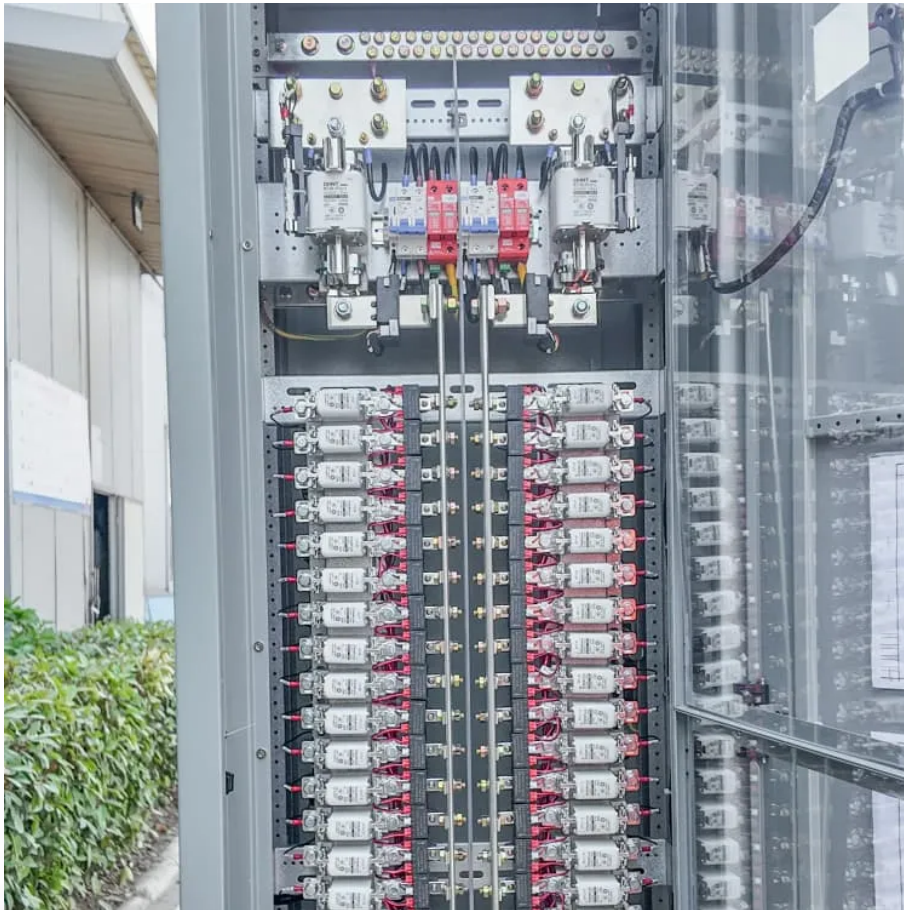


# Communication 5g base station equipment architecture





## Overview

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What is 5G base station architecture?

5G base station architecture is characterized by its flexibility, virtualization, and the ability to support diverse services through network slicing. The separation of CU and DU, along with the introduction of cloud-based technologies, allows for more efficient resource utilization and scalability.

What is a 5G network architecture?

A 5G network consists of a wireless network and core network. The following describes the concepts needed to understand 5G network architectures:  
Evolved Packet Core (EPC): an LTE core network.

Why do 5G base stations use MIMO & beamforming?

Both are critical for ensuring seamless communication between different network elements. 5G base stations often use Massive Multiple Input Multiple Output (MIMO) technology and beamforming to enhance spectral efficiency and coverage. Massive MIMO involves using a large number of antennas to communicate with multiple devices simultaneously.

What is a standalone 5G network?

Standalone (SA): standalone networking. SA uses an end-to-end 5G network architecture, where 5G standards are used on terminals, base stations, and core networks. SA supports a variety of 5G new services, including eMBB, URLLC, and mMTC, and is applicable to the middle and later stages of 5G network construction. Routers support NSA and SA.



## Communication 5g base station equipment architecture



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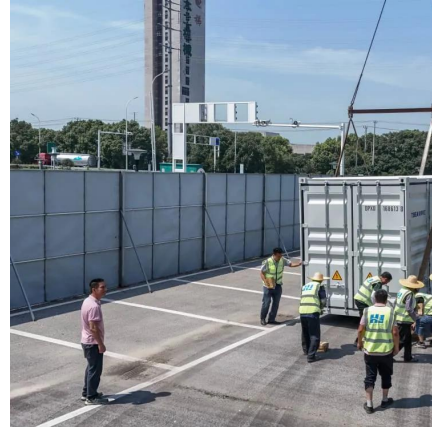


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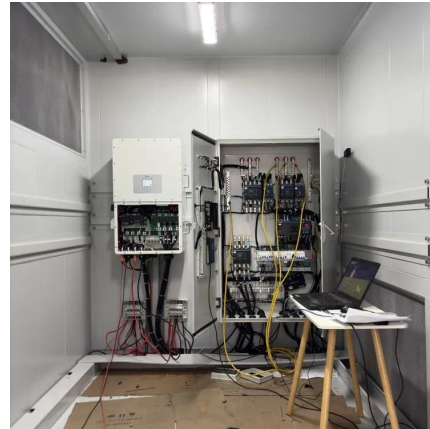
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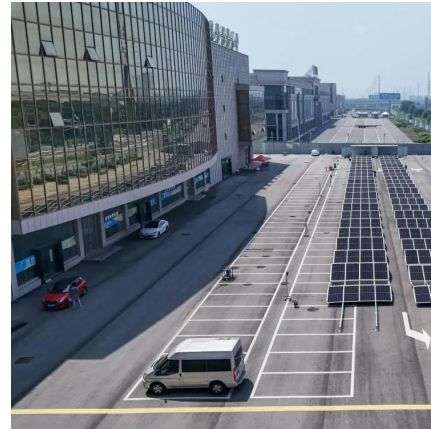
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